



75TH AIR BASE WING



# Implementation of the Air Program Information Management System (APIMS) Inspection Module

2009 Environment, Energy and  
Sustainability Symposium and Exhibition

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE <b>MAY 2009</b>		2. REPORT TYPE		3. DATES COVERED <b>00-00-2009 to 00-00-2009</b>	
4. TITLE AND SUBTITLE <b>Implementation of the Air Program Information Management System (APIMS) Inspection Module</b>				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>75th Air Base Wing, 75ABW/CEG/CEVC, Hill AFB, UT, 84056</b>				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>					
13. SUPPLEMENTARY NOTES <b>Presented at the NDIA Environment, Energy Security &amp; Sustainability (E2S2) Symposium &amp; Exhibition held 4-7 May 2009 in Denver, CO.</b>					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>18</b>	19a. NAME OF RESPONSIBLE PERSON
a. REPORT <b>unclassified</b>	b. ABSTRACT <b>unclassified</b>	c. THIS PAGE <b>unclassified</b>			

# OUTLINE

---



1. What Is APIMS?
2. Hill AFB Background
3. The APIMS Inspection Module
  - Feature Overview
  - Minimizing Risk and Cost
  - Maintaining Accurate and Complete Information
  - Detailed Features
  - Accessing Data/Performing Tasks
4. Summary

# WHAT IS APIMS?



> Managing compliance-related information is often challenging

- Multiple, sometimes overlapping regulations
- Establishment of procedures for assessing compliance
- Extensive recordkeeping requirements

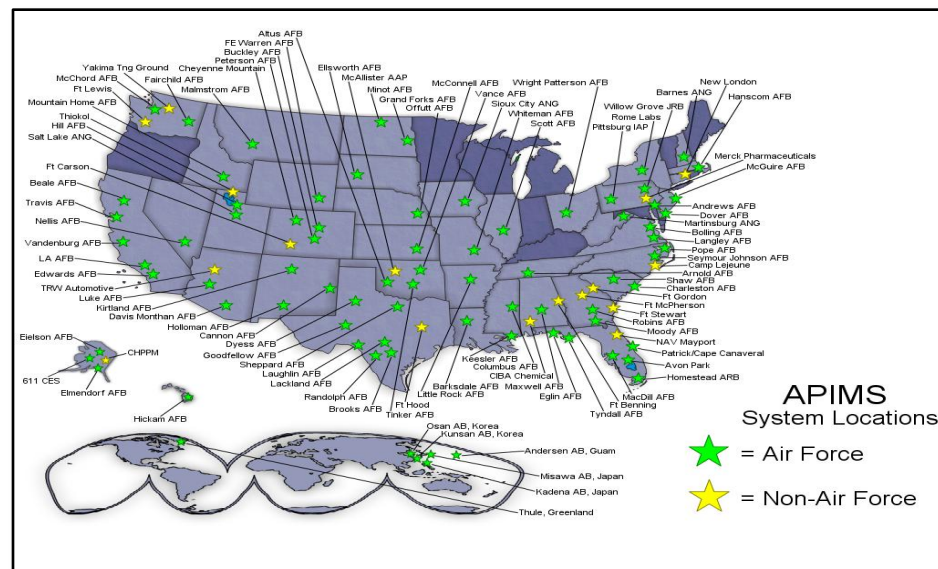


> The APIMS inspection module simplifies the process

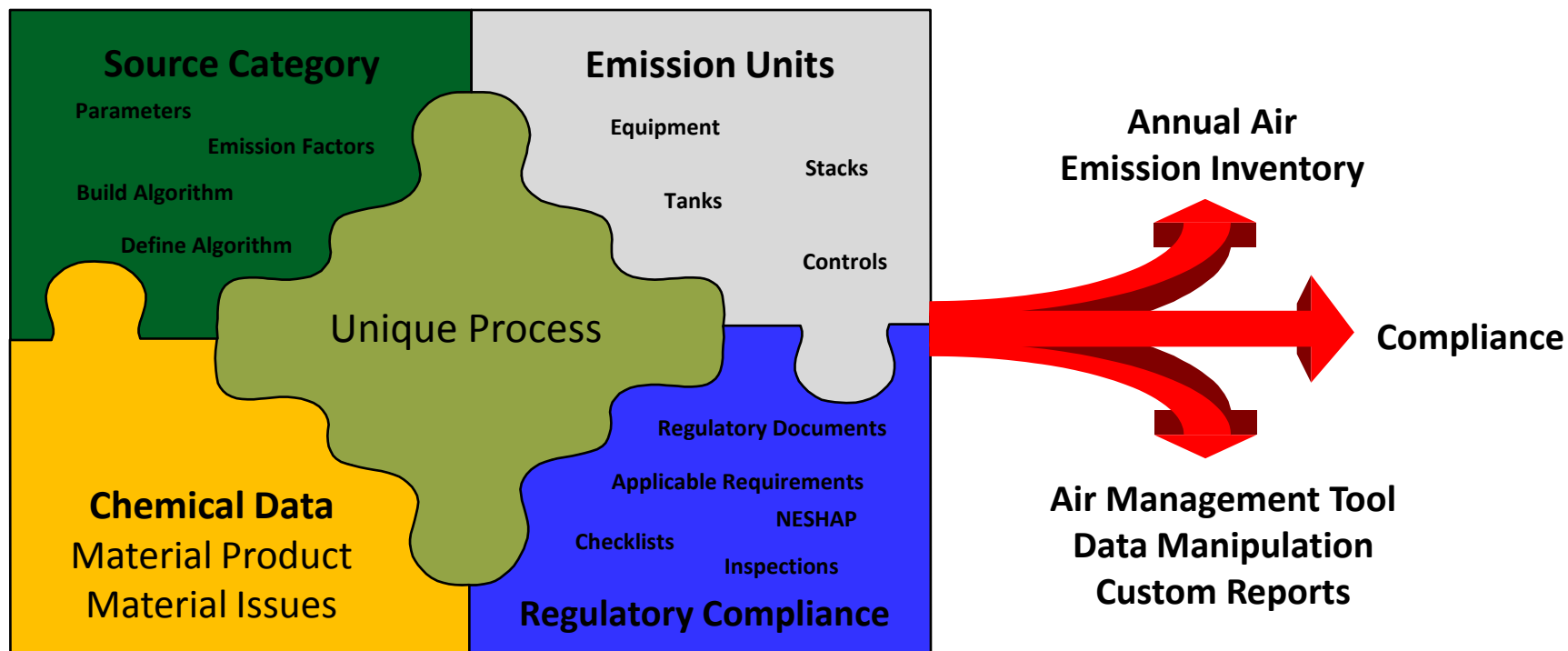
# WHAT IS APIMS?



- > Automated, web-based system for managing air quality compliance data
- > Used at over 60 U.S. Military installations
- > Complies with all AF IT security requirements



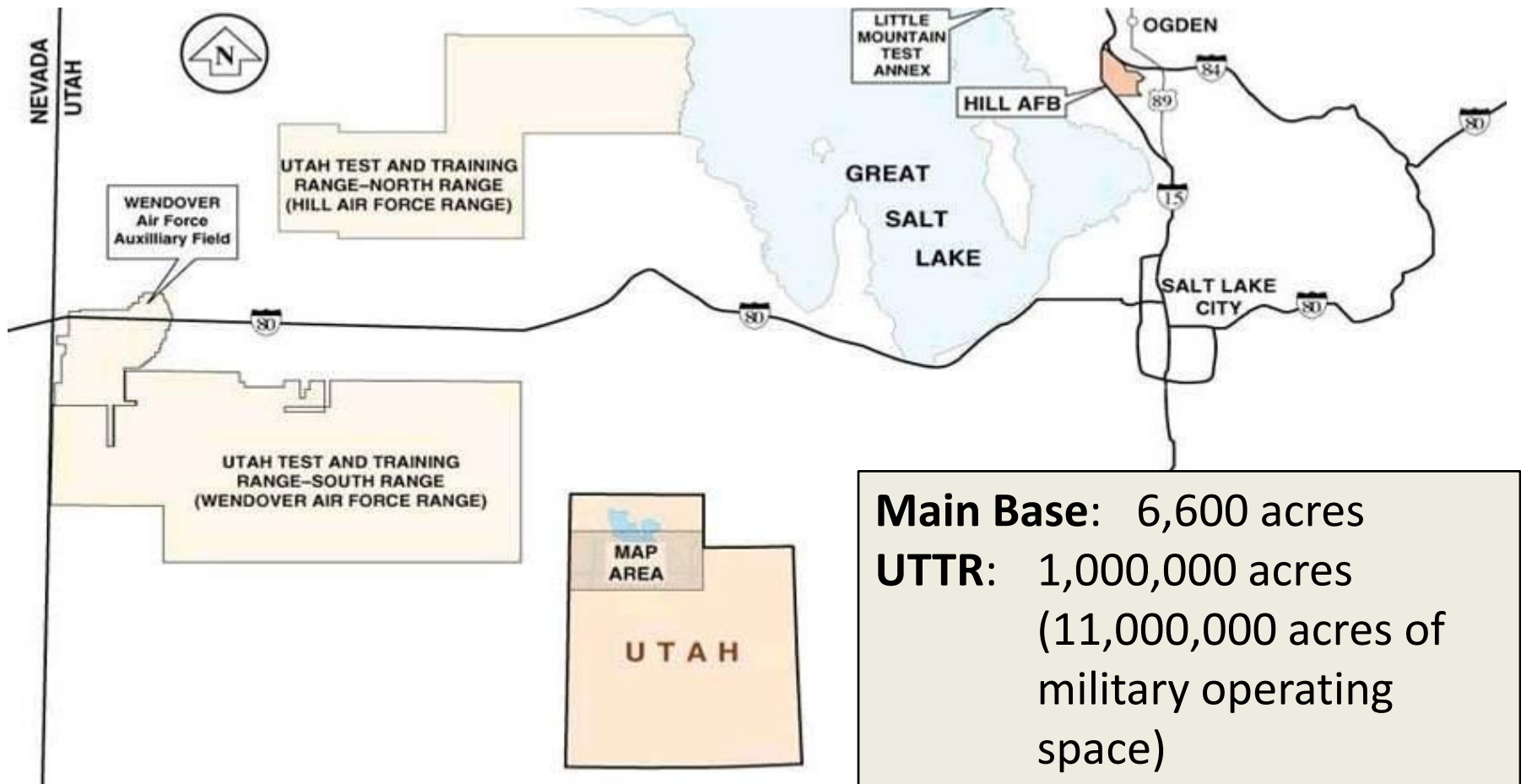
# WHAT IS APIMS?



# HILL AFB BACKGROUND



## Hill AFB—a Large Facility:



**Main Base:** 6,600 acres  
**UTTR:** 1,000,000 acres  
(11,000,000 acres of military operating space)

# APIMS INSPECTION MODULE:

## *Feature Overview*



### **The APIMS Inspection Module Offers:**

- > Web-based compliance management for environmental protocols (e.g. Air, hazmat, hazwaste, etc.)
  - Monitoring
  - Recordkeeping
  - Reporting
- > Inspection frequencies and results
- > Inspectable source/process/equipment inventory lists
- > Process-specific inspection checklists
- > Customizable reports





### **The APIMS Inspection Module Offers, Cont'd:**

- > Automatic email notifications of deviations and other actions performed in the system
- > Release limits
- > Consumption/usage data
- > Rolling totals
- > Corrective action tracking
- > Trend analyses
- > Default user preferences
- > User workbaskets

# APIMS INSPECTION MODULE:

## *Minimizing Risk and Cost*



### **APIMS Inspection Module Reduces Risk by:**

- > Maintaining accurate and complete information
  - Requirements
  - Processes and equipment
  - Checklists
- > Managing audits
  - Routine/non-routine
- > Daily monitoring of organization inspections
  - Prompt corrective action
  - Ensure required inspections completed

# APIMS INSPECTION MODULE:

## *Minimizing Risk and Cost*



### Results:

- > Reduced time required to manage inspections by over 70% (5,000 to 1,400 hours)
- > Reduced air quality permit deviations (alone) by 80%

Function	Approach, Hours	
	Old	New
Oversight		
Reporting	520	130
Managing Checklists, Sites, Inspection Data	804	220
Organization		
Reporting	3328	832
Managing Checklists, Sites, Inspection Data	385	182

# APIMS INSPECTION MODULE:

## *Maintain Accurate and Complete Information*



### Checklist Management:

- > Centralized inspection checklists for each process
- > Ensures correct monitoring and recordkeeping as regulatory requirements

ABRASIVE BLASTING OPERATOR/UEC CHECKLIST AEROSPACE NESHAP				
AQUIS NUMBER	BUILDING	MONTH/YEAR	OPERATOR/SUPERVISOR NAME	UEC NAME
OPERATOR or SUPERVISOR	1. Abrasive blast media usage is recorded (in pounds) on the media usage log each time media is added to blasting equipment. <i>II.B.2.a</i>			Operator/Supervisor Initials/Date/Time (Monthly)
	2. Equipment is maintained in good mechanical condition. (All maintenance actions performed on the equipment are documented using an AFMC Form 355, AFTO Form 244, Maintenance Log, FEMS, Trouble Call Log, or other suitable form) <i>II.B.1.b</i>			
	3. All abrasive blasting is done within the blast booth/enclosure and all air exits through the dust collection system. <i>II.B.3.b (3)</i>			
	4. *A differential pressure gauge is installed across the filter banks and is read and recorded on a log at least once per shift. (If pressure reading is outside of established limits, or there is an unexpected pressure drop, operation is shut down immediately and the UEC is notified.) <i>II.B.3.b 1</i>			
UEC	5. Blast media consumption is entered into a CEV data system (or sent to CEV using Air Reports folder) for this process by the 10 <sup>th</sup> of each new month using operator usage logs. <i>II.B.2.a</i>			UEC Initials/Date/Time (Monthly)
	6. A monthly visual emissions observation (VEO) is conducted and documented on this form. <i>II.B.3.a</i> Date: _____ Time: _____ Emissions Observed: Yes or No			
	7. A Method 9 evaluation is performed within 24 hours if emissions are observed during the monthly VEO. (opacity limit is 40% for Aerospace NESHAP blast booths) <i>II.B.3.a</i>			
	8. Process and equipment changes are pre-coordinated with CEV. (Submit a New Source Sheet and CEV will submit a 7-day notification of new equipment installation to UDAQ) <i>II.B.2.b</i>			
	9. All equipment malfunctions or limit exceedences are reported to CEV immediately. <i>II.B.3.b.2</i>			
	10. Operator/UEC checklists, all material usage logs, and records of all maintenance performed on this unit are available and maintained for five years. <i>I.S.1.a</i>			
	11. CEV was notified promptly of any potential Title V deviations. <i>I.S.2.c</i>			
	12. This log-entry documents that a visual inspection was performed to determine compliance with the items listed in the operator section of this Operator/UEC Checklist and that all information on the checklist is true, accurate, and complete. <i>I.S.1.a</i>			

# APIMS INSPECTION MODULE:

## *Detailed Features*



## Inspection Management:

### > Inspection records

- Data entered via inspection checklist screen
- Regulatory conditions that were met/violated are included
- Corrective actions are recorded and tracked

### > System can be configured to

- Generate inspections
- Route inspection through workflow

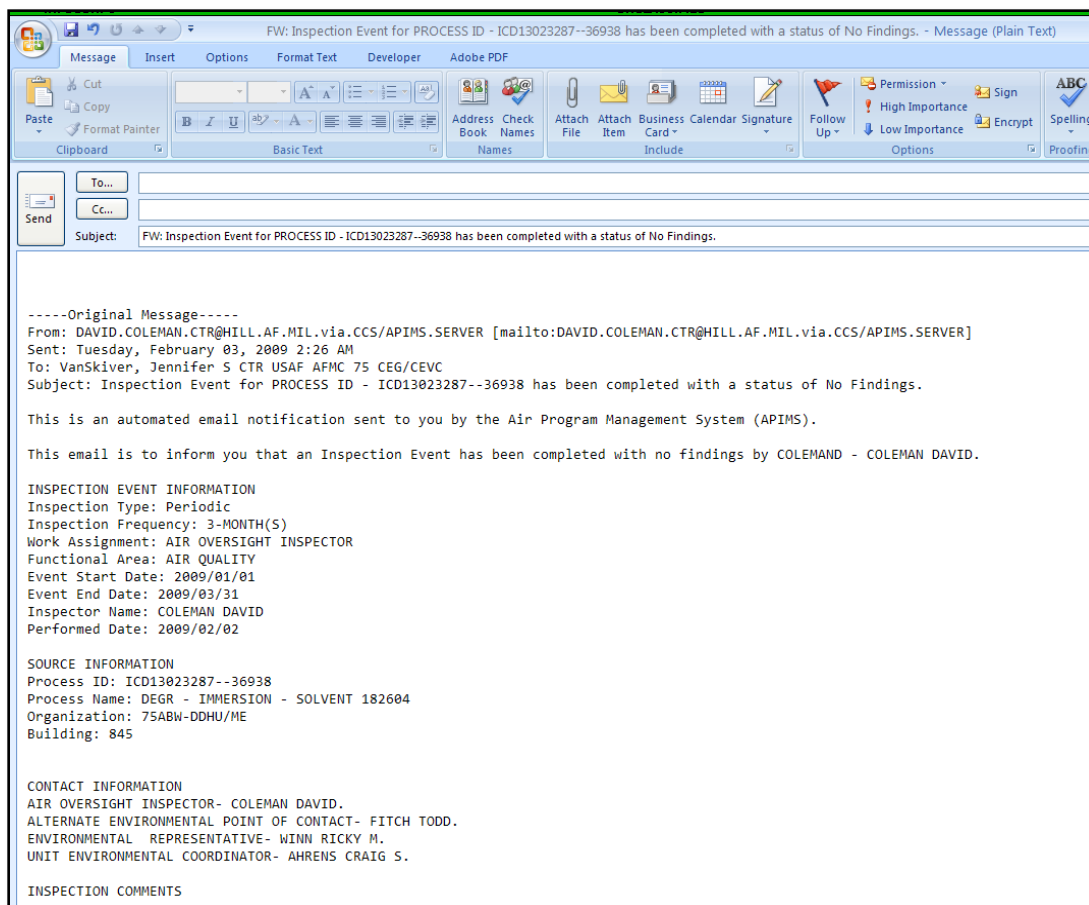
A screenshot of the APIMS Inspection Event Entry screen. The screen displays a form for entering inspection data. At the top, there is a menu bar with options: Action, Edit, Menu, Field, Record, Query, Help, Window. Below the menu bar, there is a tabbed interface with tabs: INSPECTION EVENT (selected), FOLLOWUP, REVIEW/INSPECTION, REVIEW HISTORY, and SUPPORTING DOCUMENTS. The main form area is titled "INSPECTION EVENT". It contains several fields for data entry: 'EVENT DEFINITION NAME' (GSQLSURFO MONAERO UEC MONTHLY), 'PROCESS ID' (CD11708110-8110), 'SERIAL NO', 'AIR EQUIP ID', 'EVENT TYPE' (PERIODIC), 'INTERVAL START DATE' (2008/0/01), 'INTERVAL END DATE' (2008/10/01), 'TARGET START DATE' (2008/10/01), 'TARGET END DATE' (2008/10/01), 'INSPECTION PERFORMED DATE' (2008/0/01), 'INSPECTOR', 'INSPECTION RESULTS' (REPORTABLE FINDINGS, NON-REPORTABLE FINDINGS, NO FINDINGS), 'COMMENTS', 'STATUS', and 'INSPECTION COMPLETION DATE'. Below these fields, there is a table for the inspection checklist. The table has columns: QUESTION, Y/N, VALUE, COMMENTS, and CORRECT ACTION FLAG. The table contains several rows of questions related to inspection criteria, such as "Are all materials (topcoats, primers, solvents, etc.) issued through an EMC database (HMS, DESOHM, etc.)?", "Are all HVPS w/overs in place and current for those activities where High Vapor Pressure Solvents are used? Reference I.B.25.4", "Are semi-annual inspections performed and documented to ensure all painting operations conducted outside of a paint booth are allowed to be conducted", "Are operators taking caution to not permit or cause volatile organic compounds (VOCs) to be spilled, discarded, stored in open containers, or handled in any", "Are no Miscellaneous Metal parts or Aerospace NESHAP parts, excluding ANESHAP exempt parts cleaned or painted in this building/area? (if MMP or", "Are all records referred to kept and available for a period of 5 years or at least from the issue of the Title V Operating Permit? (Permit issue date is October", and "CEV was notified promptly of any potential Title V deviations. IS 2.c". Each row has a "Y/N" column, a "VALUE" column, a "COMMENTS" column, and a "CORRECT ACTION FLAG" column. The "CORRECT ACTION FLAG" column contains buttons for "CORRECTIVE ACTION". At the bottom of the screen, there is a footer with the text "2008/10/18 Inspection Event Entry Date" and "Inspection Event Revision Date 2008/10/03".

# APIMS INSPECTION MODULE:

## *Detailed Features*



- > Auto-generated emails notify affected parties of inspection results
  - Increases visibility



# APIMS INSPECTION MODULE:

## *Detailed Features*



## 9 Types of Customizable Reports:

Home Tasks ▶ Reports ▶ Administration ▶ Community ▶ Help ▶

**Select Report:**

- ☐ Inspect Complete
- ☐ Inspect Complete (Spot)
- ☐ Inspect Findings
- ☐ Inspect In Progress
- ☐ Inspect Remain
- ☐ Inspect Remain and Complete
- ☒ Inspect Summary
- ☐ Inspect Summary Prct Complete
- ☐ Source List

**Functional Area:**

- ☒ SAFETY
- ☒ AIR QUALITY
- ☒ HAZARDOUS MATERIALS
- ☒ HAZARDOUS WASTE

**Facility:** ALL

**Frequency:** ANNUAL

**Period:** ☐ Previous ☒ Current

**Start Date:** 1/1/2009

**End Date:** 12/31/2009

**Organization:**

- 309MXW
- 388FW
- 419FW
- 526ICBMSW
- 75ABW

**Sub Organization:**

Select All Clear All

Populate Sub Orgs

Delete Sub Orgs

Show Report

# APIMS INSPECTION MODULE:

## *Accessing Data/Performing Tasks*



- > Wide array of filtering criteria allow users to access very precise data without need for manual manipulation
  - Filter on multiple criterion including event dates, equipment ID, environmental media type (e.g. air, waste, etc.), owning organization, user, etc.

A screenshot of the "QUERY\_WINDOW" application. The window has a menu bar (Action, Edit, Menu, Field, Record, Query, Help, Window) and a toolbar. The main area is divided into several sections: "PROCESS INFORMATION" with fields for EVENT START DATE FROM, EVENT START DATE TO (2009/02/26), INSPECTION FREQUENCY, and a table with columns UNIQUE ID, PROCESS ID, BASE SPECIFIC ID, LOCAL PROCESS NAME, BUILDING NO, SOURCE CATEGORY CODE, and UNIT ORG. Below this is "FUNCTIONAL AREA" with a list box containing "HAZARDOUS MATERIALS" and "HAZARDOUS WASTE", and "RUG CODE" and "NOTICE CODE" list boxes. "WORK ASSIGNMENT" has a list box for "UNIT ENVIRONMENTAL COORDINATOR". "USER" has a list box for "SWIGER ANTHONY". "DIRECTORATE" has a list box with "30SEMKG", "30GMMKG", and "30GMXSG". "EQUIPMENT INFORMATION" has fields for SERIAL NO, AIR EQUIP ID, and MODEL NO. At the bottom, "SORT RESULTS BY" has four criteria: SORT CRITERIA 1 (BASE SPECIFIC ID), SORT CRITERIA 2 (FUNCTIONAL AREA), SORT CRITERIA 3 (UNIT ORG), and SORT CRITERIA 4 (AIR EQUIP ID), each with "ASCENDING" and "DESCENDING" radio buttons. At the very bottom are "RESTORE DEFAULTS", "EXECUTE QUERY", and "CANCEL" buttons.



# APIMS INSPECTION MODULE:

## *Accessing Data/Performing Tasks*



- > Workbasket and default user settings enable users to access pertinent data quickly
  - Workbasket shows inspection items specific to a user
  - Default user settings reduce need to filter data manually

The screenshot shows the "INSPECTION WORKBASKET (WORKBASKET)" window. It has a menu bar (Action, Edit, Menu, Field, Record, Query, Help, Window) and a toolbar. Below the toolbar are buttons: MENU, FILTER OR SORT DATA, GO TO, REASSIGN TASK, VIEW TASK NOTES, ASSIGN A PROXY, and VIEW STATISTICS. The main area is titled "WORKBASKET" and contains a welcome message: "Welcome to your workbasket: SWIGER ANTHONY. No filters are applied." Below this are tabs: INSPECTIONS, REVIEW-IN-PROGRESS, NOTIFICATIONS, and NON-PERIODIC EVENTS. The "INSPECTIONS" tab is active, displaying a table of inspection items. The table has columns: PROCESS UNIQUE ID, BASE SPEC ID, 'RIG CODE, 'BLDG NO, 'LOCAL PROCESS NAME, 'UNIT ORG, PROCESS STATUS, 'FUNCT AREA, and PROXY. The table lists 15 inspection items, including G&S\_OTHER, HAZMAT, and HAZWASTE. At the bottom, there are four summary boxes: "# OF DISPLAYED INSPECTIONS" (51), "# OF DISPLAYED NOTIFICATIONS" (4653), "# OF DISPLAYED REVIEW-IN-PROGRESS INSPECTIONS" (0), and "# OF DISPLAYED NON-PERIODIC DEFINITIONS" (2250).

PROCESS UNIQUE ID	BASE SPEC ID	'RIG CODE	'BLDG NO	'LOCAL PROCESS NAME	'UNIT ORG	PROCESS STATUS	'FUNCT AREA	PROXY
7765	7765	G&S_OTHER	849	GSOL/SURFO - INSPECTION OF	DDHJME	ACT	AIR QUALITY	
7845	7845	G&S_OTHER	1377 and 2149	GSOL/SURFO - INSPECTION OF	649MUNS	ACT	AIR QUALITY	
7895	7895	G&S_OTHER	1269	GSOL/SURFO - INSPECTION OF	367TRSS	ACT	AIR QUALITY	
8110	8110	G&S_OTHER	891	GSOL/SURFO - INSPECTION OF	DISA	ACT	AIR QUALITY	
8113	8113	G&S_OTHER	914	GSOL/SURFO - INSPECTION OF	LGRF	ACT	AIR QUALITY	
8137	38537	RFO	891	ODC - APPLIANCE > 50 LBS	DISA	ACT	AIR QUALITY	
8686	LJ005	HAZMAT	507	HM-CABINET-LHM005	LJLPM	ACT	HAZARDOUS MATE	
8687	LJ002	HAZMAT	507	HM-CABINET-LHM002	LJLPM	ACT	HAZARDOUS MATE	
8688	LJ001	HAZMAT	507	HM-CABINET-LHM001	LJLPM	ACT	HAZARDOUS MATE	
9030	249	HAZMAT	843	HM-CABINET-HM249	526EMKSMXDPK	ACT	AIR QUALITY	
12679	38891	ALLEQUIP_BOIL_AGG_BOIL	891	ECOM - OF BOILER - DIESEL -	DISA	ACT	AIR QUALITY	
100655	TH15	HAZWASTE, HM_ACCS	849	HM-ACC - TH15	DDHJMS	ACT	HAZARDOUS WAS	
100661	EM03	HAZWASTE, HM_IAP	514	HM-IAP - EM03	75CEG	ACT	HAZARDOUS WAS	
100693	EM01	HAZWASTE, HM_ACCS	514	HM-ACC - EM01	CEV	ACT	HAZARDOUS WAS	

# OF DISPLAYED INSPECTIONS: 51  
# OF DISPLAYED NOTIFICATIONS: 4653  
# OF DISPLAYED REVIEW-IN-PROGRESS INSPECTIONS: 0  
# OF DISPLAYED NON-PERIODIC DEFINITIONS: 2250

## The APIMS Inspection Module:

- > Reduces risk
- > Complies with AF IT security requirements
- > Is comprehensive
  - Monitoring, recordkeeping, reporting for air, hazmat, and hazwaste
- > Offers highly-tailored data filtering capabilities
- > Includes advanced user default settings



*75TH AIR BASE WING*

---

**EMAssist**

**Steve Rasmussen**

**75ABW/CEG/CEVC**

**(801) 777-0359**

**[Steve.Rasmussen@hill.af.mil](mailto:Steve.Rasmussen@hill.af.mil)**

**David Hansell**

**EM-Assist, Inc.**

**(801) 775-6902**

**[DHansell@EM-Assist.com](mailto:DHansell@EM-Assist.com)**